FAA | AVIATION NEWS

APRIL 1965

FEDERAL AVIATION AGENCY

FAA | AVIATION NEWS

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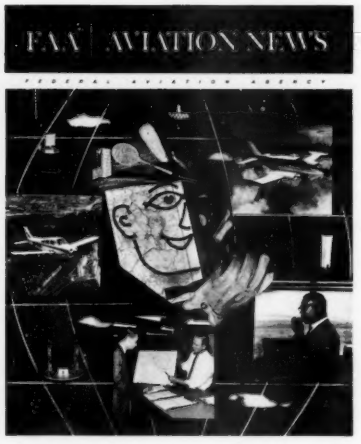

Spring is here, and many a ground-bound, winter-weary pilot will be taking to the skies after, FAA hopes, he has followed the spring maintenance check on page 8.

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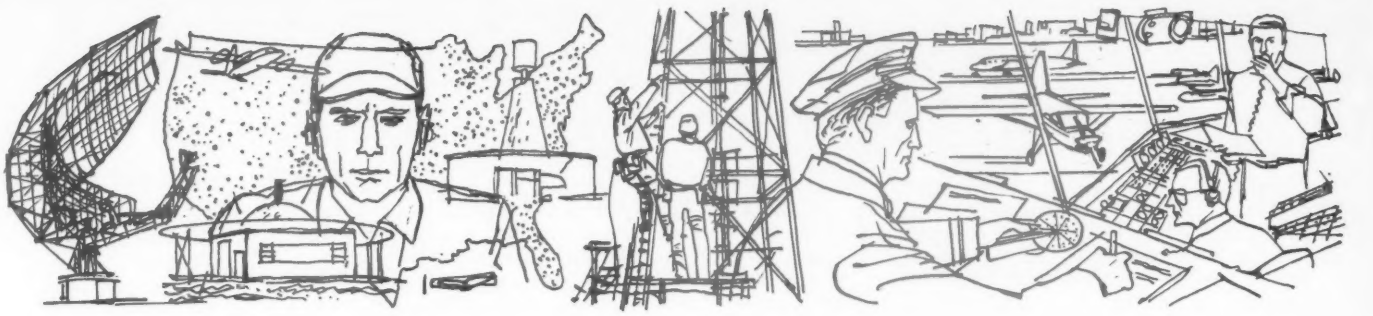


FAA CONCENTRATES ON WAYS TO REDUCE AVIATION ACCIDENTS

With general aviation accident deaths still averaging more than two a day, the FAA focused its attention last month on the man who flies the airplane and the man who teaches him.

The occasion was a meeting of management-level FAA officials in Washington to review the problems of aviation safety and to examine possible solutions. George S. Moore, Director of the Agency's Flight Standards Service, made the presentation.

"The greatest single force for safety in the air," Moore said, "lies in the personal vigilance and individual responsibility of each and every person engaged in this dynamic industry." He scored the "complacency to hazards" and "woeful disregard of safety regulations" which he said characterize a large percentage of aircraft accidents.

Moore also stressed the "need for more professionalism" in general aviation. "Our accident records clearly show that professionalism in piloting techniques is a definite accident prevention factor. The professional approach to flying should be undertaken by all of us."

The importance of "good standardized" initial and recurrent flight instruction also was emphasized. Moore called this "one of the basic ingredients of a good accident prevention program."

Reviewing the general aviation accident rate since 1946, Moore said there was a downward trend for about 10 years, but "since 1956 there has been no real significant change in the accident rate."

In 1964 there were 5,039 general aviation accidents—a rate of 33.2 accidents per 100,000 flying hours. Of these, 501 involved 903 fatalities.

"With the continued growth in general aviation," Moore said, "there will be some 7,575 accidents yearly by 1975, if we maintain the present rate."

Human behavior factors causing accidents include complacency, overconfidence and action based on emotion or ritual rather than deliberate, sound judgment. Examples were cited of pilots who leave their charts behind and mechanics who "guesstimate."

"Too many pilots have allowed a case of 'get-home-itis' to influence sound judgment when facing adverse weather conditions or suffering from fatigue.

"Many a pilot and his passengers have lost their lives because the pilot was too embarrassed to say 'I don't know how' or 'I can't do it' or 'Please give me some assistance.' "

Moore urged that pilots follow check lists deliberately, not as a routine ritual, whether checking fuel and oil caps or implementing the words "gear down, locked and pressure up."

Moore said that in 1964 faulty flying technique accounted for more than 53 per cent of total accidents with "continued flight into adverse weather" a factor in 141 accidents. "Loss of control and adverse weather" accounted for 79 accidents, including 70 which were fatal.

As could be expected, the amateur pilot is involved in far more accidents than the professional. A review of 1964 statistics shows that the business man who flies himself has an accident rate almost 19 times higher than the professional business transport or corporate pilot, with 58.1 accidents compared to 3.1 accidents per 100,000 flying hours.

George S. Moore

Also the more flying hours a pilot has accumulated in the preceding 90 days, the safer he is to fly with. Statistics show that the accident rate for those with 10 hours or less within the 90-day period is 122 accidents per 100,000 flight hours. The rate falls as the flight hours increase, with pilots who logged 160 hours or more in the preceding 90 days having only seven accidents per 100,000 flying hours.

"What can we do to prevent accidents?" Moore asked. "First of all, we must encourage the complete cooperation of government, industry and the public. We must all become safety conscious.

"We must all be aware of the factors that cause accidents, and then make a positive effort to prevent these factors from increasing in frequency.

"Industry, a flying public and the government must continually meet on an individual or collective basis. We in FAA must meet with the fixed-base operator, the instructor, the examiner, pilot organizations, flying clubs and sales organizations.

"We must solicit and take advantage of the best thinking of industry and from the flying public."

The FAA safety expert said that pilots must be discouraged from initiating flights when en route weather is known to be unfavorable or when it might be beyond the personal capability of the pilot or beyond the capabilities of the aircraft he is flying.

"We must encourage experienced pilots to assist less knowledgeable pilots with preflight planning," he said, "and we must encourage pilot-owners to better familiarize themselves with their aircraft, its limitations and its performance capabilities."

Moore stressed the importance for sound flight instruction, particularly in landing and take-off phases of flight. He pointed out that 75 per cent of accidents take place near the airport—27.8 per cent during landing, 21.7 per cent during approach, 18.3 per cent during take-off and 6.6 per cent during other ground operations.

CHEATING ON TEST IS GROUNDS FOR REVOCATION

Cheating and other irregularities committed in connection with airmen tests and related records can result in a one-year disqualification for a certificate or rating, according to new regulations issued by the FAA.

Such violations would also be a basis for suspending or revoking any certificates or ratings already held.

Effective March 20, the new rules apply to the examination and records of pilots, flight instructors, ground instructors, flight engineers, tower operators, aircraft dispatchers, mechanics, repairmen and parachute riggers.

Similar penalties will apply in cases of fraudulent or intentional falsification of applications for airmen, ground instructor or medical certificates or ratings; falsification of entries in logbooks, records or reports to show compliance with any requirement for a certificate or rating; and fraudulent reproduction or alteration of certificates or ratings.

Prohibitions regarding written tests include copying or removing test material; receiving or giving assistance; taking the test for another person; and using any unauthorized material while taking the test.

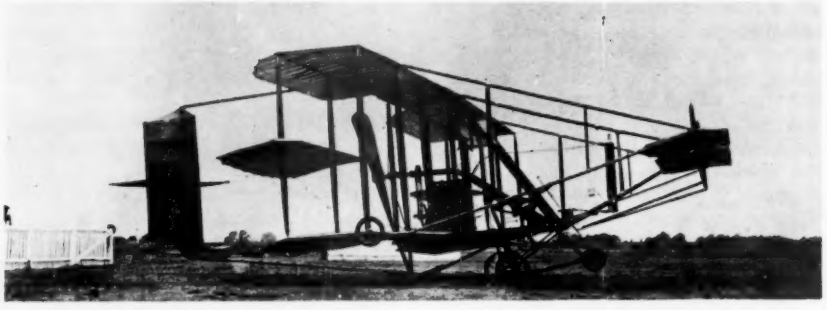
While the rules provide for suspension or revocation of certificates and ratings, such action would not be imposed automatically upon every violator. FAA would practice the same degree of discretion in these matters as it ordinarily does when considering penalties against airmen for violating other regulations.

It also is possible for civil penalties to be imposed under the new rules, either alone or in conjunction with sanctions.

Although cheating and related irregularities are not considered to be widespread, such offenses are committed at times. But due to the absence of regulations, the Agency has been unable to take appropriate action.

The new regulations, "Cheating on Tests and Other Irregularities," (Docket No. 4086) are based on a Notice of Proposed Rule-Making issued April 1, 1964. The regulations amend Parts 61, 63, 65, 67 and 143 of the Federal Aviation Regulations.

MILESTONES IN AVIATION



Samuel Franklin Cody, cowpuncher, Indian fighter and a Wild West showman, was born in Texas in 1861, but went on to become known as England's flying cowboy. No relation to "Buffalo Bill," he became a naturalized Briton.

On Oct. 16, 1908, while at the controls of a biplane of his own construction, Cody flew the first powered and sustained airplane flight in Britain at Farnborough for a distance of 1,390 feet. His machine had a wingspread of about 40 feet and was powered by an 8-cylinder, 50 horsepower Antoinette motor which turned two, two-bladed propellers.

He next fitted an 80-horsepower motor to his plane and made a flight of more than four miles at Laffan's Plain on July 21, 1909. The next month he began carrying passengers. Cody brought aviation honors to England by breaking the world's cross-country record with a circular flight of 46 miles in 66 minutes on Sept. 8, 1909.

On Aug. 7, 1913, while Cody was testing his new biplane and carrying as a passenger W.H.B. Evans, the cricketer, the machine broke up in the air and crashed, killing both occupants. (*U.S. Air Force photo.*)

Certificated Pilots Must Take New Test Before Instructing

The revised test required of certificated pilots who plan to become flight instructors, which went into effect April 1, is described in the *Flight Instructor Practical Test Guide,* FAA Advisory Circular No. 61-14.

The 11-page test guide is available for 10 cents from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

It covers techniques of instruction; preparing a lesson plan; conduct of a planned flight lesson; standardization of flight training maneuvers; flight instructor (airplane), (rotorcraft), (glider), (instrument), and post-flight critique.

Study and reference material on the principles of teaching and flight training procedures, the basis of the flight instructor practical test, is contained in the *Flight Instructor's Handbook,* FAA Advisory Circular No. 61-16, which is available from GPO for 60 cents.

The handbook updates a publication of the same name dated January 1956. The old handbook was about 90 per cent "how to fly" and 10 per cent "flight instruction."

The new handbook reverses this so that 90 per cent is devoted to effective flight instruction.

NEW PUBLICATIONS AVAILABLE

Active civil aircraft registered with the FAA increased 48 per cent over the past nine years, as of January 1964, according to the *Statistical Study of U. S. Civil Aircraft.* Released by the FAA, the publication is available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402, for 55 cents. While smaller than the *FAA Statistical Handbook of Aviation* (*FAA Aviation News,* March 1965), it does present data on all civil aircraft registered with the FAA.

Enroute IFR Air Traffic Regulations, which examines IFR relationships, peak months, busy days and aircraft under control during a peak minute, is now available free from the FAA Distribution Section, HQ-438, Washington, D. C. 20553.

Another free FAA publication is the *Heliport Design Guide,* AC-150/5390-1. This general guide for the development of a heliport presents basic information to be used for various types of heliports. It contains recommendations on site selection, physical layout characteristics and operational safety.

Agency Revises Rules Covering Obstructions to Air Navigation

Requirements for notifying the FAA about proposed structures which might adversely affect air navigation have been rewritten and simplified.

The revision, which becomes effective May 1, also consolidates FAA obstruction standards and streamlines the Agency procedures for determining the impact of proposed structures on air navigation.

Amended Federal Aviation Regulation Part 77 will require notification on any proposed construction or alteration which would extend more than 200 feet above ground level at the site. Currently, the regulations require notification on all proposed structures rising more than 150 feet above ground level.

Exceptions from this requirement will be permitted when the proposed structure would be shielded by existing structures or topographic features of equal or greater height, and would be located in the congested area of a city or town "where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation."

The notice requirements will be applicable for airports listed in the current *Airman's Information Manual* or for those operated by a military agency.

CAB ISSUES WEATHER WARNING

About one in every four fatal accidents in general aviation results from pilots continuing flight in adverse weather, according to a "Safety Alert" published by the Civil Aeronautics Board.

Most of the accidents are attributed to one or more of the following reasons:

- The pilot is not qualified by training and/or recent experience.
- The pilot does not receive a weather briefing.
- The pilot misinterprets the weather report or forecast.
- The pilot fails to keep abreast of the weather changes en route.
- The pilot ignores the in-flight weather signs.
- The pilot overestimates the capability of the anti-icing or deicing equipment on the aircraft.
- The pilot is motivated by personal pressure to continue the flight to its destination and lacks appreciation of the danger involved.

Pilots were urged to take time to evaluate their situation properly before entering or continuing flight in adverse weather.

SAFETY CERTIFICATES AWARDED USAF AERO CLUBS

Forty United States Air Force aero clubs received Federal Aviation Agency flight safety certificates from FAA Administrator N. E. Halaby in a special ceremony last month for operating during 1964 without an accident or incident.

A total of 49 clubs qualified for the 1964 FAA flight safety certificate. Nine clubs received their awards in the mail. These were sponsored by three overseas Air Force commands and were not represented at the ceremony.

Senior officers representing the 10 U.S. based major Air Force commands which sponsored the 40 award-winning flying clubs accepted the certificates in behalf of the winners. The citations read, "Presented for exercising skill and judgment in the accident-free operation of their aircraft during 1964."

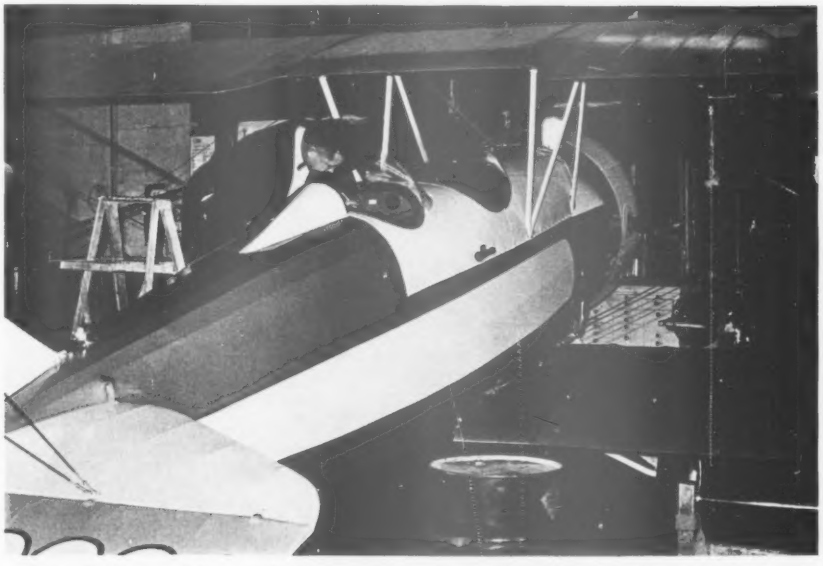
Representing a joint USAF-FAA effort to promote air safety, the awards were presented by the FAA for the first time in recognition of the significant improvements in the safety records of the USAF aero clubs over previous years.

USAF aero clubs are made up of military personnel desiring to fly for recreational purposes. Clubs use typical single-engine, light aircraft which may be owned by the club or individual members, as well as aircraft borrowed from the Air Force.

Members and planes are subject to the same FAA safety requirements and inspection that apply to civilian clubs, airplanes and aircraft owners. Flight instructors are given annual proficiency flight checks by the FAA.

At the end of 1964, there were 108 USAF aero clubs in operation with 9,428 members operating 547 airplanes.

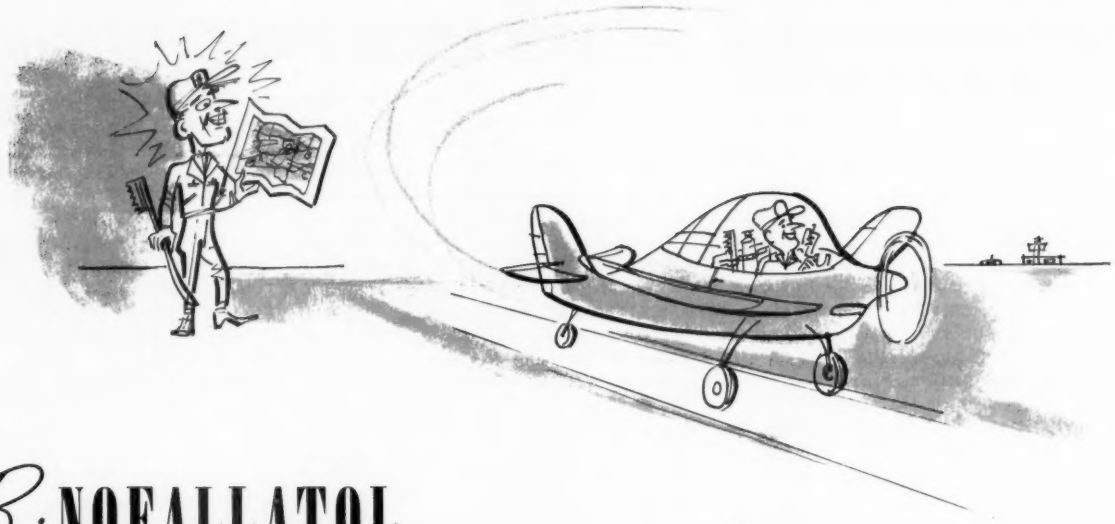
Refurbished 'Travel Air' Checked for Airworthiness



Bert Volker, above, principal operations inspector with FAA's General Aviation District Office in St. Louis, checks a 1929 *Travel Air* Model 4000 that is being refurbished at Weiss Airport in Fenton, Mo. A popular between-war type aircraft used by salesmen, business firms, barnstormers and crop dusters, the *Travel Air* features high lift and maneuverability at low speed.

Found deteriorating in a midwest barn by R. P. Smith of Warson Woods, Mo., the *Travel Air,* has space for two passengers in the front cockpit. Determined to put the antique in the air once again, Smith removed the unrepairable old 220 horsepower Wright J5 engine and substituted a Continental of the same horsepower. He also added an engine ring cowl.

The FAA inspector, who must see to it that the remodeled craft meets airworthiness requirements, has become almost as interested in the rebuilding project as Smith. Records show that the plane, with Serial No. 1418, holds FAA Approved Type Certificate No. 32 and is a conversion from an older model.



R_x: NOFALLATOL

The FAA announced recently the discovery of a compound which has proven to be effective in eliminating aircraft accidents when administered to pilots at prescribed intervals.

The announcement climaxed a two-year research project involving controlled experiments on 200 pilots who volunteered to test the new compound, NOVAMINEFALLOPIDEX ATOLAGEL. The technical name has been shortened to NOFALLATOL.

The volunteers were divided into two groups—one was given regular toothpaste, while the other experimental group was given toothpaste containing the ingredient NOFALLATOL. Neither group knew who was receiving the new wonder compound.

After the two years, the NOFALLATOL group had 90 per cent fewer accidents, while the group not receiving NOFALLATOL showed no reduction at all.

Medical experts say NOFALLATOL seems to stimulate the adrenal medulla gland which increases the heart rate, promotes vascular constriction, relaxes the intestinal muscles, increases the clotting rate of blood, increases sugar output of the liver and reinforces the sympathetic nervous system in preparation for emergency action.

During the experiment, certain side effects were observed in the NOFALLATOL group which were not found in the others.

Examples were that NOFALLATOL pilots found themselves making a few extra practice landings when returning from a trip. They also seemed to suddenly double their personal weather minimums when planning VFR cross-country flights. It was observed that the NOFALLATOL group took twice as much time in planning for a flight.

Perhaps the most startling change observed in the NOFALLATOL group was that they spent more time working on their flying technique than at the golf course. These pilots frequently talked and flew with flight instructors, even when they were not working toward higher licenses.

The new product is now being distributed at moderate cost by most flight instructors, and free by all FAA General Aviation District Offices. Recommended dosage: use weekly; if used monthly, it does not produce as much effect.

Officials cautioned pilots planning to take the treatment that it is definitely habit forming.

KUON-TV in Lincoln, Neb., set up a mock-up of a flight service station, complete with weather maps and teletype samples, for the first in its new educational series on FAA assistance to pilots.

HOUSEWIVES, PILOTS BRIEFED BY TV

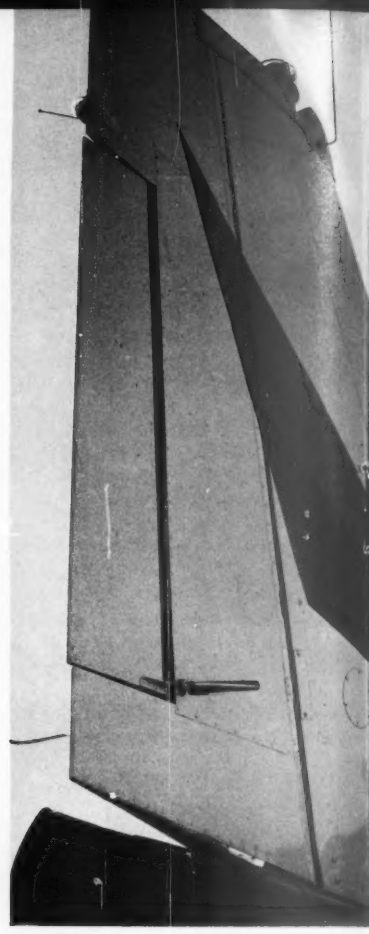
Some discerning housewives in Lincoln, Neb., have learned "how" to fly to St. Louis without getting up from the easy chair or putting down the coffee cup. And some pilots—who watched the same TV show—also picked up a few pointers.

KUON-TV in Lincoln has initiated an FAA film series after getting favorable audience response from a program called "Nebraska's Air Age," which featured FAA personnel from nearby Agency facilities. The first in the series was a 30-minute presentation of a typical flight service station weather briefing.

The educational TV station, owned and operated by the University of Nebraska, set up a simulated flight service station in the corner of a huge studio. John J. Faltermeier, an FAA flight service specialist, gave a typical weather briefing using his regular briefing aids. Ansel H. McAllaster, principal operations inspector of the FAA's local General Aviation District Office, explained how carelessness can be fatal to the pilot who fails to heed hazardous weather situations. He used a hypothetical flight from Lincoln to St. Louis to illustrate an actual briefing situation.

KUON-TV is going ahead with three more film presentations on navigation, FAA regulations and aircraft performance.

The station and the Nebraska Department of Aeronautics said the presentations would be made available to other stations or organizations at cost.



Spring Checkup

Once again it's that time of the year when youngsters get out their marbles, the crack of a bat sets the pulse pounding, wives dive into spring house cleaning and pilots take to the airways.

Most of these activities come naturally. But the airplane that's been placed in "moth balls" for the winter months requires deliberate care before it clears the runway for the first spring flight.

To start, pilots should clean their airplanes thoroughly to reveal any worn parts, damage to the fuselage or any other weak points. This should be followed by a mechanical check of the entire fuselage, both inside and out, for corrosion or other damage.

Pilots operating from sod strips should watch for mud accumulations; in fact, landing gear should be inspected before every take-off and after every landing.

Spring rains can make a sod strip soggy. Mud collected on take-offs can freeze at higher altitudes and cause retractable landing gear to stick in the up position. It also can build up inside the wheel pants and unbalance or jam wheels on landing.

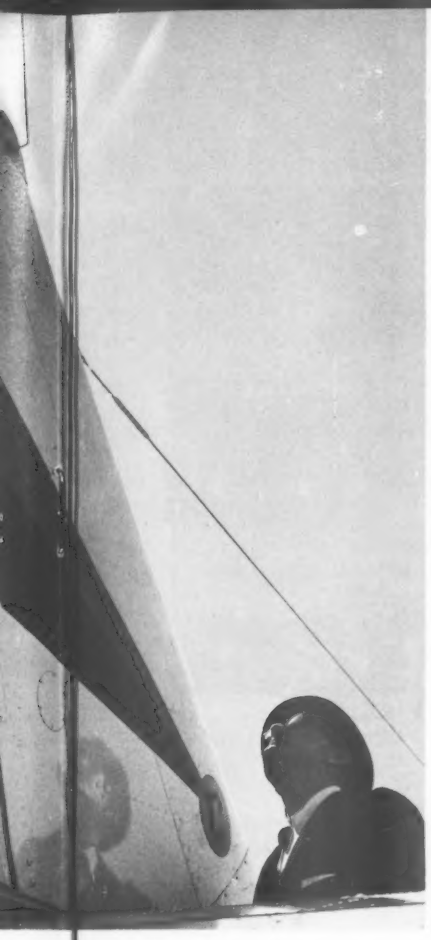
It's a good idea to actuate the gear a few times after taking off from a sloppy field to shake the mud loose.

Rats are one possible source of damage, especially at some smaller fields. It is not uncommon for them to chew off material from fabric-covered aircraft and carry it away for their nests. Rats and mice, like birds, also will build nests inside aircraft which have been tied down or hangared for long periods of time. Rats also have been known to chew through electrical cable insulation. Moreover, their excretions can cause serious structural damage.

Even though the weather may be warm, icing still remains a danger. This is particularly true of carburetor icing which does not require freezing temperatures. In fact, it is most probable between 40 and 60 degrees, and can even occur at temperatures up to 90 degrees. Since carburetor icing varies with model and installation, pilots should refer to their aircraft manuals for detailed information on coping with this phenomenon.

Other steps to follow for safe warm weather operation include:

- Check, clean and, if necessary, replace spark plugs.
- Cycle the fuel selector valve.
- Check exhaust and heater system for possible carbon monoxide leakage.
- Clean the carburetor air filter of foreign matter.
- Check the tail assembly, ailerons and flaps for dents, popped rivets and foreign matter, making sure that pins are in hinges and operating freely.
- Check antennas to see that insulators are not broken and that wires are secure.
- Make sure that tires are in good shape and properly inflated.
- Check the stall warning switch to see that it is operating freely.
- Drain fuel sumps and strainers.
- Check carburetor strainer and bowl for sediment and water.

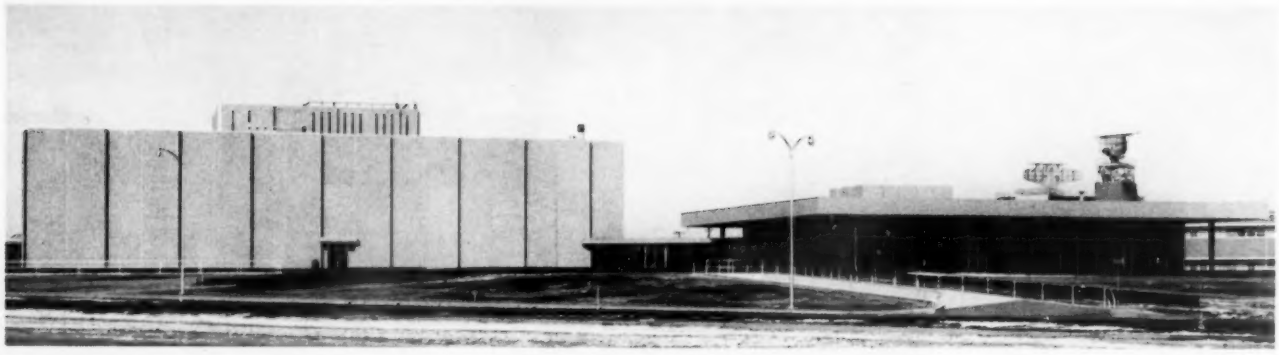


Washington, D.C., pilot G. N. Keller starts his spring checkup by making sure antenna wire is secure and insulators not broken. ● Checking spark plugs. ● Testing to make sure no water is in gas tank sump. ● Making sure hinges are not binding. ● Going over his check list.

- Replace all worn parts including bolts.
- Replenish hydraulic reservoirs.
- Change oil. Check for contamination which may have resulted from condensation during long periods of storage.
- Check for oil, fuel and hydraulic fluid leaks.
- Check oil coolers. Look for debris, nests and rocks in intake scoop.
- Check fuel tank vents. Free them of mud, insect excretions, nests and other obstructions.
- Check pitot tube. See that no mud, dirt or obstruction has clogged the static system.
- Check wings. Look for "hangar rash" or other damage.
- Remove winter shields on engine cooling openings, otherwise the engine can become dangerously overheated.
- Check idle RPM and reset for spring operations.
- Check fuel tanks to make sure they do not contain water. To prevent condensation, keep tanks full when not flying.
- If your aircraft has a diaphragm fuel pump, make sure it has not dried out during storage.
- Be sure brakes are operating properly. Mud in discs or linings can jam or grind the brakes.
- Vacuum the interior to make sure nothing is caught under the foot pedals.

Before taking off on the first spring flight, there is one more thing that a pilot should make sure of—himself. This is a good time for a pilot to take check rides and refresher courses.

Safety tips for pilots are discussed on page 3 by a leading Federal Aviation Agency safety expert.



New Building--Faster Service

The FAA's new Aviation Records Building is fast becoming a focal point for factual information regarding this nation's airmen and aircraft.

Dedicated at the Aeronautical Center in Oklahoma City last fall, the three-story structure houses the records of more than 450,000 airmen and 137,000 aircraft.

To the average pilot or aircraft owner, it means faster service. Records that previously were stored in separate buildings are now under one roof and handled by automatic equipment. Much of the information has now been reduced to punched cards, magnetic tape and microfilm.

There are three main areas of record keeping: (1) the Aeromedical Certification Division, (2) the Airman Certification Branch and (3) the Aircraft Registration Branch. The last two are part of the Data Services Division of the Aeronautical Center.

Aeromedical Certification Division

The Aeromedical Certification Division, which operates under the Office of Aviation Medicine in Washington, keeps close surveillance on the physical fitness of the nation's airmen through a system of periodic physical examinations administered by about 6,000 physicians designated by the FAA as Aviation Medical Examiners. Formerly, all medical records were screened manually for medical and technical factors. But programming medical data so the initial screening can be performed through the computer has greatly speeded the certification process.

A private pilot who wishes to keep flying is required to have a complete physical examination by an Aviation Medical Examiner at least once every two years; commercial pilots once a year, and airline transport pilots every six months.

Each examination can now be compared to preceding ones by use of the computer, a review that was virtually impossible before the advent of the high speed automatic data processing equipment. The check is used to help identify pilots who are no longer qualified physically to operate an aircraft.

Airman Certification Branch

The Airman Certification Branch maintains the records of the written examinations taken by every airman relating to the issuance of certificates. In fact, all official actions pertaining to an airman's certificate are recorded in this office.

Pilots who have failed their written examinations may request an analysis of the results by sending the type, place and date of the examination to the Airman Certification Branch, AC-365; FAA Aeronautical Center; P. O. Box 1082; Oklahoma City, Okla. 73101.

Certificates are issued not only to pilots, but also to navigators, parachute riggers, airframe and powerplant mechanics, and a host of other aviation specialists—all closely supervised by the FAA to insure that high standards are maintained at all times.

The files now contain some 1,800,000 records that have been processed since the certification program was initiated in 1927. During the years many changes have been made in the program. Even the certificates have changed many times in their appearance and size.

Aircraft Registration Branch

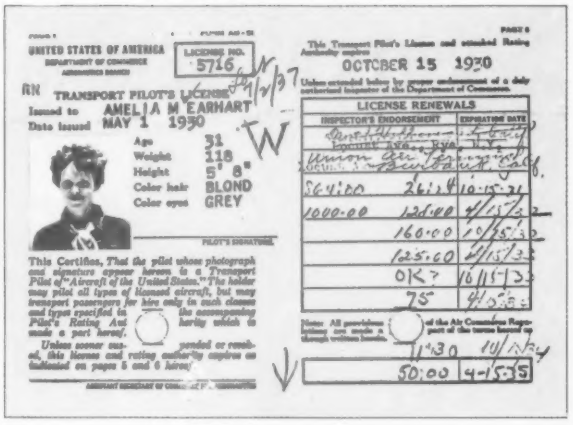
The Aircraft Registration Branch provides a system for registering all United States civil aircraft and associated functions.

In 1927 only 2,700 aircraft were registered in the United States. As of Jan. 1, 1965, the total was 137,189. All the records have been placed on microfilm for historical purposes.

Documents maintained by the FAA concerning aircraft ownership are public records. Persons interested in this type of information may personally search the records in the Public Documents Room on the first floor of the Records Building.

Any aircraft is eligible for registration in the United States if owned by a U. S. citizen and not registered under the laws of another country. An aircraft may be exported from the United States following cancellation of U. S. registration only after all recorded liens against the aircraft have been released, or consent has been given by the holder of a recorded lien. Approximately 48,000 aircraft have been exported since 1926. More than 1,400 were exported in 1964.

The $3.5 million building is a handsome addition to the $35 million complex at the Aeronautical Center.


UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
LICENSE NO. 5716
TRANSPORT PILOT'S LICENSE
Issued to AMELIA M EARHART
Date issued MAY 1 1930
Age 31
Weight 118
Height 5' 8"
Color hair BLOND
Color eyes GREY
PILOT'S SIGNATURE
This Certifies, That the pilot whose photograph and signature appear hereon is a Transport Pilot of "Aircraft of the United States." The holder may pilot all types of licensed aircraft, but may transport passengers for hire only in such classes and types specified in the accompanying Pilot's Rating Authority which is made a part hereof.
Unless sooner suspended or revoked, this license and rating authority expires as indicated on pages 5 and 6 hereof
This Transport Pilot's License and attached Rating Authority expires
OCTOBER 15 1930
LICENSE RENEWALS
INSPECTOR'S ENDORSEMENT
EXPIRATION DATE
$64.00 26:34 10-15-34
1000.00 125.00 4/15/35
160.00 10/15/36
125.60 4/15/37
OK 7 10/15/37
75 4/15/38
50.00 4-15-35

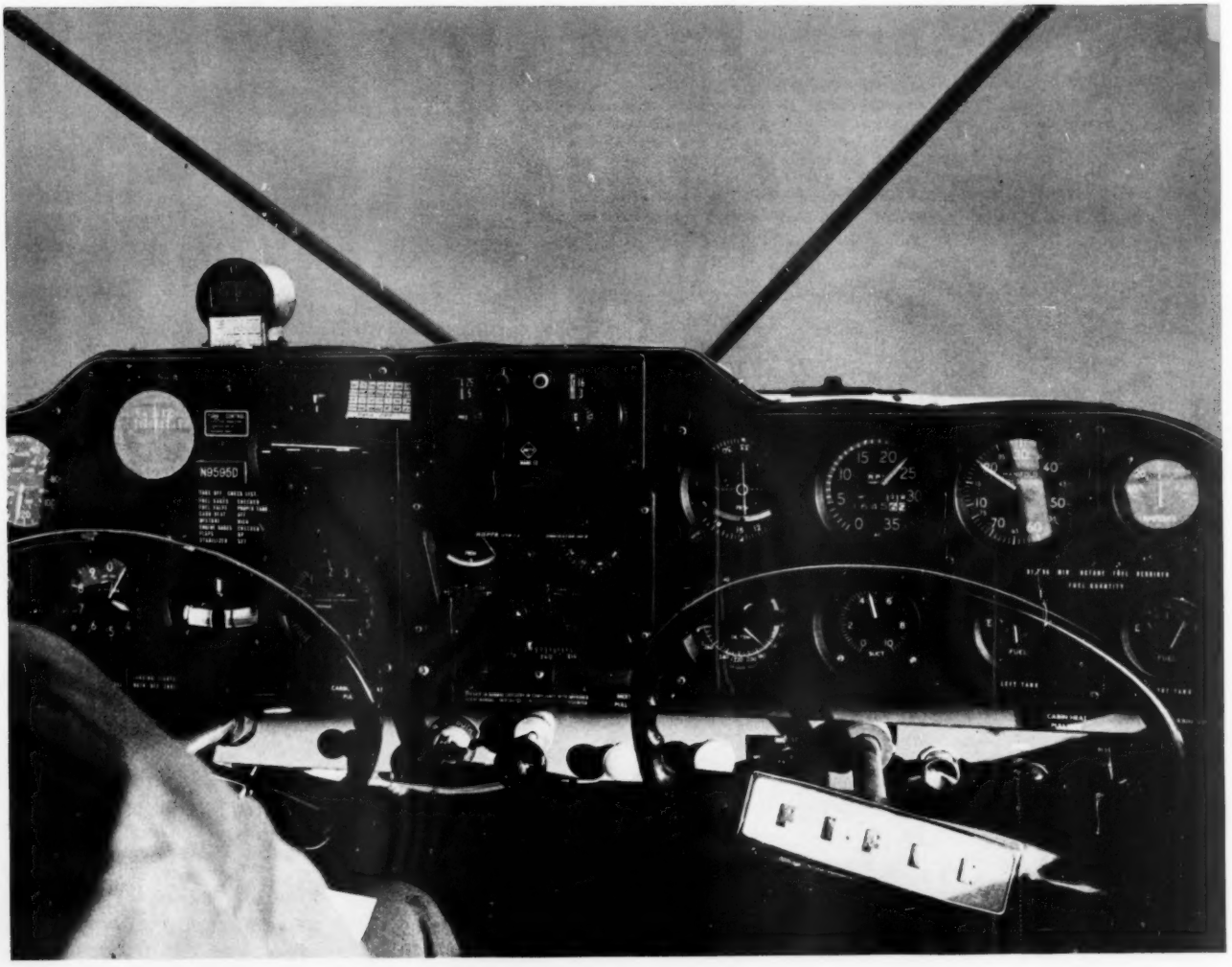
Form AR-62
UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
AERONAUTICS BRANCH
IDENTIFICATION CARD
This identification card, issued on MAY 12 1934
to CHARLES A LINDBERGH
accompanies pilot's license No. 69
DESCRIPTION OF HOLDER
Age 32
Weight 160 Color hair LT BROWN
Height 6' 2 1/2" Color eyes BLUE
THIS IS NOT A LICENSE

Above, clockwise: Certificates issued since certification began in 1927 differ in style and size. The photograph was inserted in Amelia Earhart's 1930 license; Lindbergh's identification card was issued in 1934. The Airman Certification Branch evaluates applications for all types of airman certificates. Lower right, this view of the Data Processing Division shows an IBM 7040 computer, right, and on the left, some of the many tape machines used with it. Below, a portion of an automatic file conveyor is visible between the rows of workers in the Aircraft Registration Branch.

RULES OF THE ROAD

IFR

FLYING ON THE GAUGES



This is the second in a series on "Rules of the Road."

The VFR pilot is pretty much a fair-weather bird. When the ceilings drop and visibilities obscure, he does his flying in the hangar.

Not so the instrument-rated pilot. Rain or shine, it's all the same to him. He flies.

As might be expected then, the requirements for IFR operations are much more demanding than those for VFR flying. The IFR pilot is not footloose and fancy-free like his VFR counterpart. Instead, he is an integral part of a vast and complex cooperative system of air traffic control.

To fly in this system, a pilot must first file an IFR flight plan, listing such information as the point and proposed time of departure, the destination airport and an alternate airport, and the proposed route and cruising altitude. The amount of fuel on board (in hours) and the estimated time en route also must be included along with information about the pilot and his aircraft.

ATC Clearance Required

This data is used in preparing the Air Traffic Control (ATC) clearance. No pilot may operate IFR in controlled airspace without this clearance and he may not deviate from it without permission once it has been obtained—except, of course, in emergencies. However, a pilot may cancel his IFR flight plan at any time provided he is outside the positive control area (the airspace above 24,000 feet) and VFR weather conditions prevail.

Most IFR flying is done in controlled airspace, which means that the cruising altitude will be assigned in the ATC clearance. However, if the clearance specifies "VFR-conditions-on-top," the pilot must select one of the VFR cruising altitudes (see "Rules of the Road" in March *FAA Aviation News* for discussion of VFR cruising altitudes).

To insure safe separation of en route IFR aircraft, the regulations provide that flights along a Federal airway must be conducted along the centerline of that airway. On all other routes, the IFR pilot must fly a direct line between the navigation aids or intersections which make up the route.

However, these requirements do not prohibit pilots from maneuvering to avoid VFR or other air traffic. In fact, pilots have a legal obligation—as well as a vested interest—to look for and avoid other aircraft.

Communications Is Key to Success

Effective air/ground communications is the key to successful IFR operations, and pilots are required to maintain a continuous radio watch for ATC instructions or advisories. They also must make regular position reports, advise ATC of any unforecasted weather conditions they encounter and provide any other information they feel may contribute to flight safety.

In addition, pilots must report when reaching a holding fix or point to which cleared, when vacating any previously assigned altitude, when leaving an assigned holding fix or point, when leaving a final approach fix inbound and when an approach has been missed.

Any impairment of radio communications or navigation capability during IFR flight must be reported immediately together with information on the extent of the malfunction and the assistance desired from ATC. This enables ATC to give the flight special handling such as monitoring the progress of the aircraft on radar, rerouting the aircraft so as to require less complex navigation, use of a different radio frequency, or providing other emergency services.

Should a pilot experience two-way radio failure while operating in IFR conditions, he must continue the flight in accordance with established radio failure procedures. These procedures will be discussed in a future "Rules of the Road" article.

If two-way radio failure occurs in VFR conditions, the pilot must proceed VFR, land as soon as practicable, and cancel his flight plan with ATC.

Frequently, an IFR flight will end with an instrument letdown at the destination airport. On these occasions, pilots must use a standard instrument approach prescribed by FAA for that airport—unless a different approach has been authorized by the Administrator or ATC. Standard instrument approach procedures may be found in the approach and landing charts of the U. S. Coast and Geodetic Survey. New or amended procedures are published for convenience in the *Airman's Information Manual.*

Once the pilot is on the ground, there is one thing left for him to do—make certain his flight plan is closed with Air Traffic Control.—J. L.

FEDERAL AVIATION AGENCY

FLIGHT PLAN

FORM APPROVED BUDGET BUREAU NO. 04-R072.1

1. TYPE OF FLIGHT PLAN	2. AIRCRAFT IDENTIFICATION	3. AIRCRAFT TYPE	4. ESTIMATED TRUE AIR SPEED / (Knots)	5. DEPARTURE TIME PROPOSED (Z)	5. DEPARTURE TIME ACTUAL (Z)
☐ PVFR ☐ VFR ☑ IFR ☐ DVFR	N8807H	NAVION	140	2000	

6. INITIAL CRUISING ALTITUDE	7. POINT OF DEPARTURE	8. ROUTE OF FLIGHT
7000	DCA	V157 V123 V213 JFK

9. DESTINATION (Airport & City)	10. ALTITUDE CHANGES EN ROUTE	11. ESTIMATED TIME EN ROUTE HOURS	11. ESTIMATED TIME EN ROUTE MINUTES	12. FUEL ON BOARD HOURS	12. FUEL ON BOARD MINUTES
JFK	NONE	1	19	3	30

13. ALTERNATE AIRPORT	14. REMARKS
ACY	PASSENGER : J. SMITH

15. NAME OF PILOT	16. ADDRESS OF PILOT OR AIRCRAFT HOME BASE	17. NO. OF PERSONS ABOARD
PRENDERGAST	7103 HIGHLAND AVE. SPRINGFIELD, VA.	2

18. COLOR OF AIRCRAFT	19. FLIGHT WATCH STATIONS (FAA use)
TAN & RED	

FAA Form 398 (6-62) USE PREVIOUS EDITIONS

SEE REVERSE

CLOSE FLIGHT PLAN UPON ARRIVAL

No tire this worn should still be on an aircraft.

Pilots should check their tires before each take-off.

Tires Deserve a Little TLC

Tender Loving Care

Most motorists and pilots have stopped kicking tires to see if they have enough air—or whatever it is you're supposed to find out when you knowingly drive the toe of your shoe into the tire's sidewall. Instead, people are now doing what they should have been doing all along—checking inflation with a gauge.

Other than using a gauge, however, many pilots do not pay a great deal of attention to their tires. Tire manufacturers take pride in this lack of attention because it indicates the high level of confidence most pilots have in their tires. But complete disregard of tire care can bring trouble. In fact, tires can use a little TLC—tender loving care. Any time an airplane is moving on the ground, those little rubber doughnuts are an extremely important item. A tire failure at the wrong time—and, frankly, there's not much excuse for one at any time—can mean anything from a delayed or cancelled flight to a ground loop and a demolished plane with the possibility of personal injury and death.

There are several simple things that can be done to insure tire safety as well as increase tire life and thereby reduce operating costs:

- Check inflation—but with a gauge, not a kick. Over-inflation hastens tread wear; under-inflation results in excessive distortion of the tire which speeds deterioration, sharply decreases carcass life and can cause a sudden tire failure.
- Examine tires carefully and regularly. Large bruises, foreign objects imbedded in the tire, flat spots and cuts all represent potential trouble. And you will never see these things until you get down to look for them.

The pilot, in the way he flys the plane, has a lot to do with tire safety and tire life, too. But not always in the way most people think.

Many pilots—including some with pretty thick log books—will tell you that the thing that hurts an aircraft tire most is the jolt it gets when a plane first touches down. Especially, they say, when touchdown happens to come at the end of one of those occasional landings in which the pilot flares out just right—only to find that he is still about five feet off the runway.

Not quite so, say the tire experts. A new tire is engineered specifically to handle situations like this.

But the pilot's "touch" does affect tires. For example, touching down with even the slightest brake application can cause tires to flat spot. Landing with fairly heavy brake pressure could cause a blow-out. By the same token, excessive brake application while the plane is rolling at a pretty good clip can have the same effects.

The best advice is to use the brakes lightly and sparingly. The best braking technique is to apply steadily increasing brake pressure to the degree needed and then ease off. *Intermittent brake application, much safer and more economical from the tire standpoint, will stop the plane just about as soon as continuous braking.* Also, the heat build-up during continuous brake application cuts brake efficiency.

Proper steering techniques are important, too. If nose wheel steering is available, use it instead of any brake steering. If you do use the brakes for steering, slow down a little more and ease the plane around the corners. Never lock the inside brake—ease off on it just enough to permit the inside wheel to turn a little. Locking the brake—even for turning—is a good way to develop a potentially dangerous flat spot on the tire.

Tremendous strides have been made in aircraft tire materials. The cord, much stronger than anything previously available, is lighter. The rubber itself has been improved, resulting in better tread wear and abrasive resistance. All in all, the result is a product that can give longer life and a higher degree of safety.

Letters

FAA

FAA Aviation News welcomes comments from the aviation community. We will reserve this page for an exchange of views. No anonymous letters will be used, but initials will be withheld on request.

• Experience vs. Qualifications

We have to recognize that a lot of very intelligent people have the money to provide themselves with private aircraft. It is normal, I suppose, for a smart and knowledgeable doctor, lawyer or businessman to presume that his skills might automatically serve him in realms outside of his regular lines of endeavor. Why a skillful surgeon, for example, at the age of 40, with 20 years of experience in his craft, should presume that a mere 400 or 500 hours in an airplane qualifies him to fly under instrument weather, continues to be a mystery to me.

Initials withheld

• Flying on Top

Is it legal for a noninstrument rated pilot to fly on top of an overcast provided he can climb above it VFR and descend again VFR? If he is in violation, please cite the regulations which apply.

M. C. S.
Tulsa

There is no regulation which prohibits VFR flights such as those described in your letter. There is, however, a regulation regarding basic weather minimums which applies to these flights as well as flights beneath the clouds. This is contained in Part 91.105 of the FARs and was covered in the March issue of FAA Aviation News *on pages 12-13. The March cartoon pointed out the dangers in these words: "If you're not rated IFR, avoid the clouds and you'll go far." FAA recommends that if you're flying VFR and find yourself lost on top of an overcast, do not wait until your gasoline is low before you radio for assistance.*

• Aerial Applicators

I wonder if you might send me a list of all the aerial applicators in the U. S. I am also interested in obtaining the latest FAA report on aerial application, including statistical reports on acreage treated, hours flown, number of aircraft, etc.

C. S.
Willoughby, Ohio

The FAA does not maintain a list of aerial applicators in the U. S. We suggest that you contact National Aviation Trades Association, 1346 Connecticut Ave., N.W., Washington 6, D. C., for a booklet entitled "Agricultural and Industrial Operators." It contains the names and addresses of aerial agricultural operators.

The latest report on aerial application published by the FAA is contained in a booklet entitled "Aircraft in Agriculture." We are sending you a copy. Single free copies are available from the FAA, Distribution Center, HQ-438, Washington, D. C.

• Helicopter Services

I am doing research on the growing importance of helicopters and understand that only four cities have helicopter services to and from airports on a scheduled basis. I would like to know if there are any plans for similar service in other cities.

I would also like any available information that you might have which could help me complete my research.

A. J. L. Jr.
Amherst, Mass.

Your information is correct. Only four airports in New York, Chicago, Los Angeles and Oakland-San Francisco are served by scheduled helicopter airlines. There has been an indication of increased interest in scheduled helicopter airline service at many other large cities, but no firm plans have been announced.

Although the FAA has not published the type of material you desire, you may be able to obtain such information from the Helicopter Association of America, 825 Dupont Circle Building, Washington, D. C.

• Plaudits for Controllers

I wish to commend the controllers of the Chicago Center and the O'Hare Tower personnel for the good job they did during the evening of Feb. 24 and early morning of Feb. 25 during a trying blizzard which restricted O'Hare to the use of one runway for both inbound and outbound traffic. As Captain of UAL Flight 8144 which had to hold in the Chicago area for approximately four hours I was in a good position to get a good picture of the entire operation.

Those of us flying for the commercial carriers are more than cognizant of the demanding responsibilities placed upon your operations personnel during periods such as the above. These responsibilities increase in direct proportion to the flow of traffic. It is my sincere hope that your administration recognizes this fact in such a fashion as to attract and keep the best qualified and most experienced personnel in these key positions of responsibility to share with us, the flight personnel, the job of keeping our airways and terminal areas safe.

S. B. W.
Seattle

• Gocart Glider

I am thinking of building a glider which will be attached to a Gocart. It will be limited to use on slopes that will only allow the flying Gocart to rise a few feet off the ground. It would not be flown in windy weather.

The Gocart motor will give the power necessary to take off. It would then operate entirely as a glider until the speed is lost and the glider lands. Then the Gocart power will return the glider to the top of the slope.

Will I need a license to build or fly machines of this type?

O. C. L.
Kittanning, Pa.

The device you describe would be classified as an "aircraft" and an airworthiness certificate would, therefore, be required. It also would have to be operated by an appropriately rated pilot.

Advisory Circular No. 20-27 which pertains to this subject has been mailed to you. It is suggested that you contact your nearest FAA GADO supervising inspector in Pittsburgh for assistance before undertaking construction.

• American Certificate Overseas

Could you tell me if an American private plane pilot's license is valid in Europe?

C. J. D.
Silver Spring, Md.

Most European countries are members of the International Civil Aviation Organization, whose members recognize pilot certificates issued by all other members. This means that a pilot who holds a certificate issued by an ICAO country may operate an aircraft registered in that country and in all other member countries.

If you are planning to use a U. S. pilot certificate in Europe, it is suggested that you contact the appropriate officials of the countries concerned, either at their embassies in the United States or in their countries when you arrive.

• Dear Mr. Halaby . . .

I cannot adequately express my sincere thanks to you, your staff and the Medical Advisory Board for granting me an exemption permitting me to resume flying.

It was a great thrill to receive notice of this special consideration. More than that was the personalized manner in which my case was handled, as well as the obvious effort to consider the human aspect as a factor. This created a very warm feeling toward you, as well as the entire Agency.

Initials withheld

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